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## Thermoelectric Power in Bismuth Single Crystals in the Neighborhood of the Melting Point

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## A NEW VACCUUM TYPE MERCURY STILL,

L. E. PINNEY

The still consists of a compact single unit of Pyrex glass embodying a boiler, a water cooled condenser, and a receiver. Mercury can be poured from the receiver as required without disturbing the contents of the boiler.

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## THERMOELECTRIC POWER IN BISMUTH SINGLE CRYSTALS IN THE NEIGHBORHOOD OF THE MELTING POINT

A. SOROOS

The thermoelectric power is determined directly and studied as a function of temperature for a range extending from several degrees below the melting point to a temperature well above the melting point. A transition region exists for about ten degrees above the melting point. This is taken as a definite indication of the persistence of a marked crystalline arrangement in the liquid near its freezing point.

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## RESISTIVITY OF ZINC CRYSTALS

W. J. POPPY

In an attempt to settle the discrepancy between the resistivity measurements of Bridgman on the one hand and Tyndall and Hoyem (Phys. Rev. 38, p. 820; 1931) on the other, single zinc crystals of one square cm. cross section and ten cm. long have been grown and measured. The results are in agreement with Tyndall and Hoyem. Present indications are that certain **anomalous** crystals (i.e. not truly single) have abnormally low resistivities and show great sensitivity to slight strain. The technique of growing these large crystals will be described.

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